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ABSTRACT

This is a brief preliminary report of an anthropometric measurement study of a group of Head Start children. The areas of primary concern were patterns of tooth eruption and basic head and body dimensions. Permanent Head Start personnel were trained to make the observations and measurements. The sample consisted of 148 children (76 boys, 72 girls) between 4 years 4 months and 6 years 7 months old. The measurements taken included head length, head breadth, total facial width, total facial height, weight, height, acromial height, stylion height, dactylion height, suprasternal height, symphyseal height, and various dental observations. The following observations of tooth eruption patterns were made: (1) between 4 and 5 years, both boys and girls were consistently missing their first permanent molar, (2) between 5 and 6 years, girls showed the largest number of erupted 6-year molars and both central and lateral incisors, (3) girls were also missing their deciduous teeth at this age, and (4) between 6 and 7 years, boys catch up to girls in incidence of erupted 6-year molars and incisors. Actual data is not included in this report. (MH)

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ANTHROPOMETRIC MEASUREMENTS OF CHILDREN IN THE HEAD START PROGRAM

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In conjunction with the Head Start Progran of the University of Kansas Head Start Evaluation and Research Center, and anthropometric measurement study was made of a group of children in the program. Permanent personnel of the Head Start Program were trained by Dr. William Bass to take the necessary measurements and observations. Of prime interest were patterns of tooth eruption, and basic head and body dimensions were taken on each child.

The study sample consisted of a group of 148 individuals, all school children; there were 76 males and 72 females with a total age range of 4 years, 4 months to 6 years, 7 months. All were Caucasian, though ethnic origin was not determined. They were residents of Missoula, Montana, Lincoln and Omaha, Nebraska. The children were examined once except for a control group used to check measurements, which was measured twice.

At the examination, every child was measured by a trained anthropometrist, according to a fixed schedule involving general body, head and face dimensions, as well as dental observations. The measurements included the following:

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Head length - from glabella to opisthocranion
Head Breadth - from euyon to euryon
Total facial width - bizygomatic breadth from zygion to zygion
Total facial height - nasion to gnathion

Body dimensions were taken with an anthropometer on the left side with the subject's shoes removed. The measurements included;

Weight
Height
Acromial height - from the most lateral projection of the acromion of the scapula to the floor.
Stylion height - from the distolateral end of the styloid process of the radius to the floor.
Dactylion LII height - from the middle of the tip of the middle finger when the fingers are removed from contact with the thigh and are pointing perpendicularly downwards to the floor.
Suprasternal height - from the middle of the anterior-superior border of the manubrium sterni to the floor.
Symphyseal height - form the middle of the anterior-superior border of the symphysis pubis to the floor.

The dental examination was specifically designed to note the eruption sequence of the deciduous and permanent dentition. Conditions noted were:

Deciduous tooth present.
Adult tooth present.
Not fully erupted adult tooth.
Deciduous tooth has been lost and not yet replaced by adult tooth.

The following observations were made in regard to dental eruption patterns in the children studied:

In the age range 4 years to 4 years 12 months, both males and females showed a consistent absence of the first permanent molar (6-year molar).

In the age range 5 years to 5 years 12 months (the largest group of subjects), the females showed the largest number of erupted 6-year molars and both central and lateral incisors.

Also evident were the loss of deciduous teeth in the females. The males lagged in both of these categories.

In the age range 6 years to 6 years 12 months, the males showed an increased incidence of erupted 6 year molars and incisors, equaling the rate of the females in the same age range.

In this preliminary report, it should be made clear that due to the small and restricted sample a limited amount of data is available. In the final report a more complete and detailed analysis of the existing data will be presented.

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